



ADVANCED PRESSURE TECHNOLOGY

# SERIES BP 1000 BACK PRESSURE REGULATOR PRECISE CONTROL—HIGH RELIABILITY



- ◆ 0.5 psig to 300 psig (0.035 to 21 bar) operating pressure ranges
- ◆ Flow capacity Cv = 0.3
- ◆ Stainless Steel or Brass construction
- ◆ Hastelloy® C-22® Internals, 'SH' option, for added corrosion resistance
- ◆ High leak integrity
- ◆ Machined from bar stock
- ◆ Optional features and accessories
- ◆ Fine adjustment control
- ◆ Cleaned for O2 service
- ◆ Field repairable
- ◆ Diffusion resistant Stainless Steel diaphragm
- ◆ One seal to atmosphere other than port connections. (Diaphragm isn't pierced adding a second seal)

### ENGINEERING DATA

#### Operating Parameters

Pressure ratings	0.5 to 10 psig (0.035 to 0.7 bar) BP 1001 1 to 30 psig (0.07 to 2 bar) BP 1002 5 to 100 psig (0.35 to 7 bar) BP 1010 15 to 200 psig (1.05 to 14 bar) BP 1020 15 to 300 psig (1.05 to 21 bar) BP 1030
Proof pressure	150% of maximum operating
Burst pressure	300% of maximum operating

#### Other Parameters

Inlet /outlet ports	1/4" NPT (optional porting available)
Flow coefficient, Cv	0.3
Internal volume	0.49 in <sup>3</sup> (8 cm <sup>3</sup> )
Leak rate	1 x 10 <sup>-9</sup> sccs

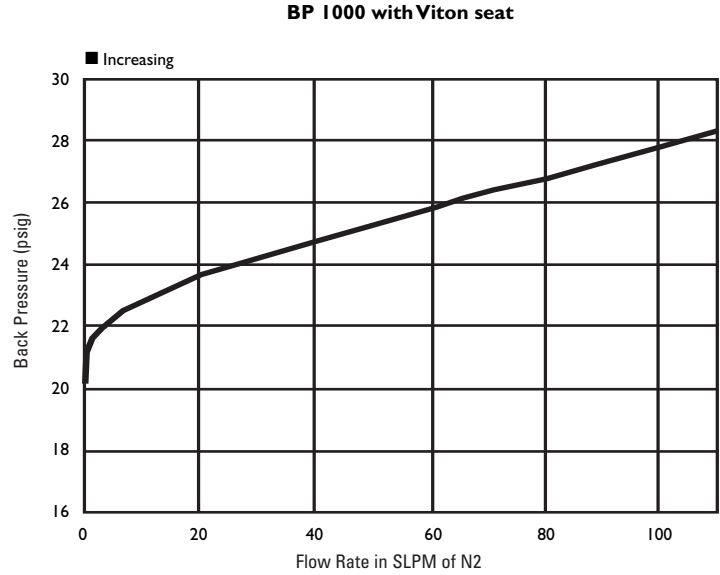
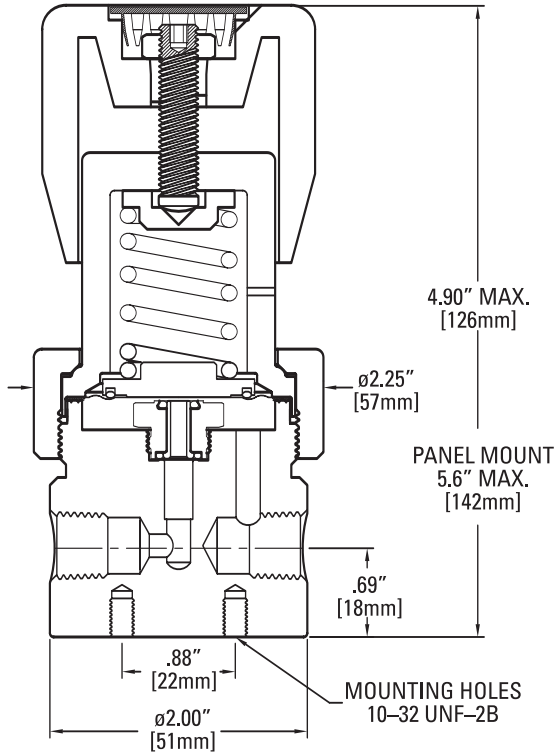
### MATERIALS OF CONSTRUCTION

	BP 1000B	BP 1000S	BP 1000SH
Body	brass	SS 316	SS 316
Nozzle and diaphragm	SS 316	SS 316	Hastelloy C-22®
Seat	Viton®*	Viton*	Viton*
Seals	Teflon®	Teflon	Teflon
Bonnet	SS 303	SS 303	SS 303

\* Optional seats available, Teflon and Kalrez®.

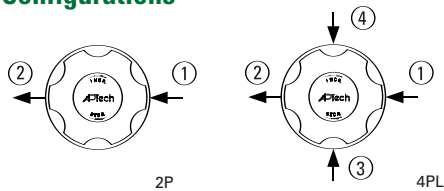
\*\* Optional temperature ranges available Please consult factory.

All specifications subject to change without notice  
Hastelloy C-22® Haynes  
Kalrez, Teflon and Viton® DuPont



All dimensions in inches (mm). Metric dimensions are for reference only.

### Porting Configurations



**NOTE:** Not all porting configurations available in brass.

### ORDERING INFORMATION

BP 1000 Series	S Material	4PL Port Configuration	4 4 ① ② Ports	0 0 ③ ④ Ports (Gauge/Accessory)	P Options
BP 1001= 0.5-10 psig (.03 to .7 bar) BP 1002= 1-30 psig (.07 to 2 bar) BP 1010= 5-100 psig (.35 to 7 bar) BP 1020= 15-200 psig (1.05 to 14 bar) BP 1030= 15-300 psig (1.05 to 21 bar)		2P = 2 Ports 4PL = 4 Ports	4 = 1/4 inch NPT	0 = No gauge or device installed V3 = 30-0-30 psig/bar 1 = 30-0-100 psig/bar 2 = 0-200 psig/bar 10 = 0-1000 psig/bar	P = Panel installation* KZ = Kalrez seat TF = Teflon seat
S = Stainless steel (SS) SH = SS with Hastelloy internals B = Brass					*Panel hole 1.56" diameter

**NOTE:** Designators required for all ports, but "0" not required if there isn't a port. A 2P has designators only for ① & ② ports, as example BP 1010 S 2P 44 not BP 1010 S 2P 44 00.